

What is claimed is:

1. A structure of a structure release, suitable for an optical interference display cell structure, the structure of a structure release comprising:

a first electrode;

a second electrode including at least one hole, wherein the second electrode is arranged about parallel with the first electrode; and

a supporter located between the first electrode and the second electrode, wherein a cavity is formed between the supporter, the first electrode and the second electrode,

wherein when a structure release etching process is used to remove a sacrificial layer between the first electrode and the second electrode to form the cavity, an etchant passes through the hole to etch the sacrificial layer, so as to reduce the time needed in the structure release etching process.

2. The structure of a structure release according to claim 1, wherein a diameter of the hole is between about 1 micrometer and 10 micrometers.

3. The structure of a structure release according to claim 1, wherein a diameter of the hole is between about 1 micrometer and 5 micrometers.

4. The structure of a structure release according to claim 1, wherein the structure release etching process is a remote plasma etching process.

5. The structure of a structure release according to claim 4, wherein a precursor of a remote plasma formed in the remote plasma etching process is an etching reagent, and the etching reagent is selected from the group consisting of a fluorine base and a chlorine base.

6. The structure of a structure release according to claim 4, wherein a precursor of a remote plasma formed in the remote plasma etching process is selected from the group consisting of CF_4 , BCl_3 , NF_3 , SF_6 and any combination thereof.

7. The structure of a structure release according to claim 1, wherein the etchant includes an etching reagent, and the etching reagent is selected from the group consisting of a fluorine base and a chlorine base.

8. The structure of a structure release according to claim 1, wherein the etchant is selected from the group consisting of CF_4 , BCl_3 , NF_3 , SF_6 and any combination thereof.

9. The structure of a structure release according to claim 1, wherein a material of the sacrificial layer is selected from the group consisting of dielectric material, metal material and silicon material.

10. The structure of a structure release according to claim 1, wherein the second electrode is a deformable electrode.

11. A method for manufacturing an optical interference display cell disposed on a substrate, the method for manufacturing an optical interference display cell comprising:

forming a first electrode on the substrate;

forming a sacrificial layer on the first electrode;

forming at least two openings in the sacrificial layer and the first electrode to define a position of the optical interference display cell;

forming a supporter in each of the openings;

forming a second electrode on the sacrificial layer and the supporter in each of the openings, wherein the second electrode includes at least one hole, and the hole exposes the sacrificial layer; and

removing the sacrificial layer by a remote plasma etching process.

12. The method for manufacturing an optical interference display cell according to claim 11, wherein the second electrode is a deformable electrode.

13. The method for manufacturing an optical interference display cell according to claim 11, wherein a diameter of the hole is between about 1 micrometer and 10 micrometers.

14. The method for manufacturing an optical interference display cell according to claim 11, wherein a diameter of the hole is between about 1 micrometer and 5 micrometers.

15. The method for manufacturing an optical interference display cell according to claim 11, wherein a precursor of a remote plasma formed in the remote plasma etching process is an etching reagent, and the etching reagent is selected from the group consisting of a fluorine base and a chlorine base.

16. The method for manufacturing an optical interference display cell according to claim 11, wherein a precursor of a remote plasma formed in the remote plasma etching process is selected from the group consisting of CF₄, BCl₃, NF₃, SF₆ and any combination thereof.

17. The method for manufacturing an optical interference display cell according to claim 11, wherein a material of the sacrificial layer is selected from the group consisting of dielectric material, metal material and silicon material.